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(54) NEW POLYMER AND PHOTORESIST COMPOSITION

(57) Abstract:

PROBLEM TO BE SOLVED: To obtain a polymer having an acid-unstable group and useful for a photoresist composition capable of effectively providing an image by a short wave.

SOLUTION: This polymer contains substantially no aromatic group, and has a hung acid-unstable group comprising a (substituted) isobornyl group, a (substituted) fenchyl group, a (substituted) pinenyl group, a (substituted) 3,2,0- bridge-based group, a (substituted) 2,2,1-bridge-based group, a (substituted) heteroalicyclic group, a cycloalkyl group having a (substituted) 3C or 4C cyclic group, or a (substituted) alkenyl group. The polymer preferably includes a repeating unit of the formula [L is a (substituted) isobornyl, a (substituted) fenchyl or the like; X is intitile, a (substituted) alicyclic or the like; R is a (substituted) alkyl, a (substituted) alkenyl or the like; Z is a bridging group between the polymer units; (a) to (c) are each mol.% of each polymer unit]. The unit of isobornyl methacrylate is especially preferable.

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